

1 **Amendment to the Claims**

2 **In the Claims:**

3 Please amend Claims 1 and 47 as follows:

4 1. (Currently Amended) A system for obtaining at least one output signal corresponding to at
5 least one image of an object--wherein there is relative motion between the object and the system,
6 comprising:

7 (a) a collection lens disposed so that light traveling from the object passes through
8 the collection lens and travels along a collection path, said collection lens substantially collimating
9 light from the object;

10 (b) an imaging lens disposed in the collection path to receive light that has passed
11 through the collection lens, producing focused light that is directed along an imaging path; and

12 (c) a time delay integration (TDI) detector configured to generate at least one
13 output signal corresponding to at least one image of ~~an object~~ the object, said TDI detector disposed
14 to receive of the focused light directed along the imaging path, said TDI detector being inclined at an
15 angle relative to the imaging path, so that a plane of the TDI detector is not perpendicular to the
16 imaging path, and so that light from the imaging path that is incident on a first part of said TDI
17 detector forms an image exhibiting a first focus, while light from the imaging path that is incident on
18 a different part of said TDI detector forms an image exhibiting a different relative focus.

19 Claims 2-46 (Previously Cancelled)

20 47. (Currently Amended) An imaging system configured to produce at least one image of an
21 object while there is relative movement between the object and the imaging system, comprising:

22 (a) a collection lens disposed so that light traveling from the object passes through
23 the collection lens and travels along a collection path, said collection lens substantially collimating
24 light from the object;

25 (b) a focusing lens disposed in the collection path to receive light that has passed
26 through the collection lens, producing focused light that is directed along an image path; and

27 (c) a light sensitive detector disposed to receive the focused light directed along
28 the image path, said detector being disposed at an angle relative to the focusing lens, such that light
29 from the image path that is incident on a first part of said detector exhibits a first focus, while light
30 from the image path that is incident on a different part of said detector exhibits a different focus.

1 Please add new Claims 48-55.

2 48. The system of Claim 1, wherein the at least one output signal propagates over the TDI
3 detector with a velocity that is substantially asynchronous with that of a corresponding image of the
4 object formed on the TDI detector.

5 49. (New) An imaging system for obtaining at least one output signal corresponding to at
6 least one image of an object wherein there is relative motion between the object and the system,
7 comprising:

8 (a) an imaging lens disposed to focus light from the object and direct the focused
9 light along an imaging path; and

10 (b) a time delay integration (TDI) detector configured to generate at least one
11 output signal corresponding to at least one image of the object, said TDI detector disposed to receive
12 the focused light directed along the imaging path and being inclined at an angle relative to the
13 imaging lens, so that a plane of the TDI detector is not parallel to a longitudinal axis of the imaging
14 lens, such that light from the imaging lens that is incident on a first part of said TDI detector forms a
15 first image, while light from the imaging lens that is incident on a second part of said TDI detector
16 forms a second image, the first image and the second image being characterized by exhibiting a
17 different relative focus.

18 50. (New) The imaging system of Claim 49, wherein the at least one output signal
19 propagates over the TDI detector with a velocity that is substantially asynchronous with that of a
20 corresponding image of the object formed on the TDI detector.

21 51. (New) The imaging system of Claim 49, further comprising a collection lens disposed so
22 that light traveling from the object passes through the collection lens and travels along a collection
23 path, said collection lens substantially collimating light from the object, the imaging lens being
24 disposed in the collection path.

25 52. (New) An imaging system configured to produce at least one image of an object while
26 there is relative movement between the object and the imaging system, comprising:

27 (a) an imaging lens disposed to direct light from the object along an image path;
28 and

29 (b) a light sensitive detector disposed to receive the light from the object directed
30 along the image path, said detector being disposed at an angle relative to the imaging lens, such that

1 light from the image path that is incident on a first part of said detector forms a first image, while
2 light from the image path that is incident on a different part of said detector forms a different image,
3 the first image and the different image exhibiting a different relative focus, such that if the first image
4 is in focus, the different image is not in focus, and if the different image is in focus, the first image is
5 not in focus.

6 53. (New) The imaging system of Claim 52, further comprising a collection lens disposed so
7 that light traveling from the object passes through the collection lens and travels along a collection
8 path, said collection lens substantially collimating light from the object, the imaging lens being
9 disposed in the collection path.

10 54. (New) The imaging system of Claim 52, wherein the light sensitive detector comprises a
11 time delay integration (TDI) detector producing at least one output signal corresponding to at least
12 one image of the object.

13 55. (New) The imaging system of Claim 54, wherein the at least one output signal
14 propagates over the TDI detector with a velocity that is substantially asynchronous with that of a
15 corresponding image of the object formed on the TDI detector.

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